

Abstract

Provided are nucleotide-dye conjugates and related compounds in which a dye is linked to a nucleobase directly or indirectly by an anionic linker. The anionic character of the linker is provided by one or more anionic moieties which are present in the linker, such as phosphate, phosphonate, sulfonate, and carboxylate groups. When the dye is provided as a donor/acceptor dye pair, the anionic linker can be located between the donor and the acceptor, or between the nucleobase and either the donor or acceptor, or both. In one embodiment, conjugates of the invention provide enhanced electrophoretic mobility characteristics to sequencing fragments, e.g., for dideoxy sequencing using labeled terminators.